

HUI-054US

AP20 Rec'd PCT/PTO 15 JUN 2006

SEQUENCE LISTING

<110> Kerri MOWEN
Laurie H. GLIMCHER

<120> MODULATION OF IMMUNE SYSTEM FUNCTION BY
MODULATION OF POLYPEPTIDE ARGININE METHYLTRANSFERASES

<130> HUI-054US

<150> PCT/US2004/044095

<151> 2004-12-20

<150> 60/531,482

<151> 2003-12-18

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Glu	Gln	Arg	Glu	Asp	Thr	Asp	Leu	Pro	Ser	Val	Pro	Ser	Leu	Pro	Val			
705					710					715					720			
Pro	His	Ser	Ala	Gln	Ala	Gln	Arg	Pro	Ser	Ser	Glu	Thr	Gly	His	Pro			
				725				730						735				
His	Asp	Arg	Ala	Met	Ser	Ala	Pro	Gly	Gly	Leu	Leu	Cys	Gln	Val	Gln			

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Pro	Ala	Tyr	Thr	Ser	Met	Val	Ala	Ser	Thr	His	Leu	Pro	Gln	Leu	Gln
		755					760					765			
Cys	Arg	Asp	Glu	Gly	Ala	Gly	Lys	Glu	Gln	His	Ile	Ala	Thr	Ser	Ser
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Val	Met	His	Gln	Pro	Phe	Gln	Val	Thr	Pro	Thr	Ser	Pro	Ile	Gly	Ser
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Ser	Tyr	Gln	Ser	Ile	Gln	Thr	Ser	Met	Tyr	Asn	Gly	Pro	Thr	Cys	Leu
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Pro	Val	Asn	Pro	Ala	Ser	Ser	Gln	Glu	Phe	Asp	Pro	Val	Leu	Phe	Gln
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Gln	Asp	Ala	Ala	Leu	Ser	Ser	Leu	Val	Asn	Leu	Gly	Cys	Gln	Pro	Leu
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Ser	Pro	Ile	Pro	Phe	His	Ser	Ser	Asn	Ser	Asp	Ala	Thr	Gly	His	Leu
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Met	Gly	Tyr	His	Cys	Ser	Asn	Ala	Gly	Gln	Thr	Ala	Leu	Ser	Ser	Pro
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Val	Ala	Asp	Gln	Ile	Thr	Gly	Gln	Pro	Ser	Ser	His	Leu	Gln	Pro	Ile
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Thr	Tyr	Cys	Pro	Ser	His	Pro	Gly	Ser	Ala	Thr	Ala	Ala	Ser	Pro	Ala
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Ala	Gln	Ser	Thr	Gly	Gln	Gly	Gly	Leu	Ser	Val	Pro	Ser	Ser	Leu	Val
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Ile	Gly	Leu	Gln	Asp	Ile	Thr	Leu	Asp	Asp	Val	Asn	Glu	Ile	Ile	Gly
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Arg	Asp	Met	Ser	Gln	Ile	Ser	Val	Ser	Gln	Ala	Thr	Glu	Val	Met	Arg
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<213> Mus musculus

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cctatgcca ctttggcatc cacgaggaga tgctgaagga tgaggtgcgc accctcacat 240
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Cys Gly Gln Ala Glu Ser Ser Glu Lys Pro Asn Ala Glu Asp Met Thr
          35          40          45
Ser Lys Asp Tyr Tyr Phe Asp Ser Tyr Ala His Phe Gly Ile His Glu
          50          55          60
Glu Met Leu Lys Asp Glu Val Arg Thr Leu Thr Tyr Arg Asn Ser Met
          65          70          75          80
Phe His Asn Arg His Leu Phe Lys Asp Lys Val Val Leu Asp Val Gly
          85          90          95
Ser Gly Thr Gly Ile Leu Cys Met Phe Ala Ala Lys Ala Gly Ala Arg
          100          105          110
Lys Val Ile Gly Ile Glu Cys Ser Ser Ile Ser Asp Tyr Ala Val Lys
          115          120          125
Ile Val Lys Ala Asn Lys Leu Asp His Val Val Thr Ile Ile Lys Gly
          130          135          140
Lys Val Glu Glu Val Glu Leu Pro Val Glu Lys Val Asp Ile Ile Ile
          145          150          155          160
Ser Glu Trp Met Gly Tyr Cys Leu Phe Tyr Glu Ser Met Leu Asn Thr
          165          170          175
Val Leu His Ala Arg Asp Lys Trp Leu Ala Pro Asp Gly Leu Ile Phe
          180          185          190
Pro Asp Arg Ala Thr Leu Tyr Val Thr Ala Ile Glu Asp Arg Gln Tyr
          195          200          205
Lys Asp Tyr Lys Ile His Trp Trp Glu Asn Val Tyr Gly Phe Asp Met
          210          215          220
Ser Cys Ile Lys Asp Val Ala Ile Lys Glu Pro Leu Val Asp Val Val
          225          230          235          240
Asp Pro Lys Gln Leu Val Thr Asn Ala Cys Leu Ile Lys Glu Val Asp
          245          250          255
Ile Tyr Thr Val Lys Val Glu Asp Leu Thr Phe Thr Ser Pro Phe Cys
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Leu Gln Val Lys Arg Asn Asp Tyr Val His Ala Leu Val Ala Tyr Phe
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Asn Ile Glu Phe Thr Arg Cys His Lys Arg Thr Gly Phe Ser Thr Ser
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Pro Glu Ser Pro Tyr Thr His Trp Lys Gln Thr Val Phe Tyr Met Glu
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 Pro Met Pro Ser Asp Glu Gly Arg Gly Pro Gly Ala Asp Gln Gln His
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 Arg Phe Phe Tyr Pro Glu Pro Gly Ala Gln Asp Pro Thr Asp Arg Arg
 35 40 45
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 Ala Gly Ser Ser Leu Gly Thr Pro Tyr Ser Gly Gly Ala Leu Val Pro
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 Gln Val Ala Gly Phe Pro Gly Pro Gly Glu Phe Phe Pro Pro Pro Ala
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 Gly Ala Glu Gly Tyr Pro Pro Val Asp Gly Tyr Pro Ala Pro Asp Pro
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Gln	Gly	Arg	Arg	Met 165	Phe	Pro	Phe	Leu	Ser 170	Phe	Thr	Val	Ala	Gly 175	Leu	
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Glu	Pro	Thr	Ser 180	His	Tyr	Arg	Met	Phe 185	Val	Asp	Val	Val	Leu 190	Val	Asp	
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Gln	His	His 195	Trp	Arg	Tyr	Gln	Ser 200	Gly	Lys	Trp	Val	Gln 205	Cys	Gly	Lys	
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Ala	Glu	Gly	Ser	Met	Pro	Gly 215	Asn	Arg	Leu	Tyr	Val 220	His	Pro	Asp	Ser	
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Pro	Asn	Thr	Gly	Ala	His 230	Trp	Met	Arg	Gln	Glu 235	Val	Ser	Phe	Gly	Lys 240	
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Glu	Val	Asn 275	Asp	Gly	Glu	Pro	Glu 280	Ala	Ala	Cys	Ser	Ala 285	Ser	Asn	Thr	
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His	Val 290	Phe	Thr	Phe	Gln	Glu 295	Thr	Gln	Phe	Ile	Ala 300	Val	Thr	Ala	Tyr	
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Lys	Gly	Phe	Arg 325	Glu	Asn	Phe	Glu	Ser	Met 330	Tyr	Ala	Ser	Val	Asp 335	Thr	
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Pro	Phe	Ser 355	Pro	Leu	Leu	Ser	Asn 360	Gln	Tyr	Pro	Val	Pro 365	Ser	Arg	Phe	
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Tyr	Pro 370	Asp	Leu	Pro	Gly	Gln 375	Pro	Lys	Asp	Met	Ile 380	Ser	Gln	Pro	Tyr	
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gtg gcc cct caa tac ccg ccc aag atg agc cca gct ggc tgg ttc cgg							1344
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ccc atg cga act ctg ccc atg gac ccg ggc ctg gga tcc tca gag gaa							1392
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Glu Pro Ser Asp Ser Gly Leu Gly Glu Gly Asp Thr Lys Arg Arg Arg							
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ata tcc ccc tat cct tcc agt ggc gac agc tcc tct ccc gct ggg gcc							1536
Ile Ser Pro Tyr Pro Ser Ser Gly Asp Ser Ser Ser Pro Ala Gly Ala							
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cct tct cct ttt gat aag gaa acc gaa ggc cag ttt tat aat tat ttt							1584
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Arg	Ala	Gly	Leu	Tyr	Pro	Gly	Pro	Arg	Glu	Asp	Tyr	Ala	Leu	Pro	Ala	
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Leu	Trp	Ser	Lys	Phe	Asn	Gln	His	Gln	Thr	Glu	Met	Ile	Ile	Thr	Lys	
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Glu	Pro	Thr	Ser	His	Tyr	Arg	Met	Phe	Val	Asp	Val	Val	Leu	Val	Asp	
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Gln	His	His	Trp	Arg	Tyr	Gln	Ser	Gly	Lys	Trp	Val	Gln	Cys	Gly	Lys	
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225					230					235					240	
Leu	Lys	Leu	Thr	Asn	Asn	Lys	Gly	Ala	Ser	Asn	Asn	Val	Thr	Gln	Met	
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Ile	Val	Leu	Gln	Ser	Leu	His	Lys	Tyr	Gln	Pro	Arg	Leu	His	Ile	Val	
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Glu	Val	Asn	Asp	Gly	Glu	Pro	Glu	Ala	Ala	Cys	Ser	Ala	Ser	Asn	Thr	
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His	Val	Phe	Thr	Phe	Gln	Glu	Thr	Gln	Phe	Ile	Ala	Val	Thr	Ala	Tyr	
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Trp	Leu	Gly	Thr	Pro	Arg	Glu	His	Ser	Tyr	Glu	Ala	Glu	Phe	Arg	Ala	
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Val Ser Met Lys Pro Thr Leu Leu Pro Ser Ala Pro Gly Pro Thr Val
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Pro Tyr Tyr Arg Gly Gln Asp Val Leu Ala Pro Gly Ala Gly Trp Pro
420 425 430

Val Ala Pro Gln Tyr Pro Pro Lys Met Ser Pro Ala Gly Trp Phe Arg
435 440 445

Pro Met Arg Thr Leu Pro Met Asp Pro Gly Leu Gly Ser Ser Glu Glu
450 455 460

Gln Gly Ser Ser Pro Ser Leu Trp Pro Glu Val Thr Ser Leu Gln Pro
465 470 475 480

Glu Pro Ser Asp Ser Gly Leu Gly Glu Gly Asp Thr Lys Arg Arg Arg
485 490 495

Ile Ser Pro Tyr Pro Ser Ser Gly Asp Ser Ser Ser Pro Ala Gly Ala
500 505 510

Pro Ser Pro Phe Asp Lys Glu Thr Glu Gly Gln Phe Tyr Asn Tyr Phe
515 520 525

Pro Asn
530